NECAP Science 2014 Grade 8 Release Items Prediction Chart

Item	DOK	Domain	Target	Prediction
1	**2**	Physical Science	**PS1-1** Students will investigate the relationships among mass, volume and density.	
2	**2**	Physical Science	**PS1–2** Given data about characteristic properties of matter (e.g., melting and boiling points, density, solubility) students will identify, compare, or classify different substances.	
3	**2**	Physical Science	**PS2-6** Given a real-world example, students will show that within a system, energy transforms from one form to another (i.e., chemical, heat, electrical, gravitational, light, sound, mechanical).	
4	**2**	Earth/Space Science	**ESS1–1** Students will use geological evidence provided to support the idea that the Earth's crust/lithosphere is composed of plates that move.	
5	**2**	Earth/Space Science	**ESS1–3** Students will explain how earth events (abruptly and over time) can bring about changes in Earth's surface: landforms, ocean floor, rock features, or climate.	
6	**2**	Earth/Space Science	**ESS 1-5** Students will, using data about a rock's physical characteristics, make and support an inference about the rock's history and connection to rock cycle.	
7	**2**	Life Science	**LS 1-1** Students will, using data and observation about the biodiversity of an ecosystem, make predictions or draw conclusions about how the diversity contributes to the stability of the ecosystem.	
8	**2**	Life Science	**LS3- 8** Students will use a model, classification system, or dichotomous key to illustrate, compare, or interpret possible relationships among groups of organisms (e.g., internal and external structures, anatomical features)	
9	**2**	Life Science	**LS4-12** Students will describe the major changes that occur over time in human development from single cell through embryonic development to new born (i.e., trimesters: 1st – group of cells, 2nd - organs form, 3rd - organs mature).	
10	**2**	Life Science	**LS2-5** Using data and observations, students will predict outcomes when abiotic/biotic factors are changed in an ecosystem.	

NECAP Science 2014 Grade 8 Inquiry Items Prediction Chart

Item	DOK	Domain	Target	Prediction
1	**2**	Inquiry	**INQ 2** Construct a coherent argument in support of a question, hypothesis, prediction.	
2	**2**	Inquiry	**INQ 11** Analyze data, including determining if data are relevant, artifact, irrelevant, or anomalous.	
3	**3**	Inquiry	**INQ 12** Use evidence to support and justify interpretations and conclusions or explain how the evidence refutes the hypothesis.	
4	**2**	Inquiry	**INQ 6** Students will provide reasoning for appropriateness of materials, tools, procedures, and scale used in the investigation.	
5	**2**	Inquiry	**INQ 8** Use accepted methods for organizing, representing, and manipulating data.	
6	**3**	Inquiry	**INQ 4** Identify information/evidence that needs to be collected in order to answer the question, hypothesis, prediction.	
7	**2**	Inquiry	**INQ 2** Construct a coherent argument in support of a question, hypothesis, prediction.	
8	**2**	Inquiry	**INQ 5** Develop an organized and logical approach to investigating the question, including controlling variable.	